

PATENT COOPERATION TREATY

PCT

REC'D 25 NOV 2005

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

PCT

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference MI04H11/P-WO	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/EP2004/010928	International filing date (day/month/year) 30.09.2004	Priority date (day/month/year) 03.10.2003	
International Patent Classification (IPC) or national classification and IPC A61B18/18			
Applicant MICROSULIS LIMITED et al.			
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 6 sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: a. <input type="checkbox"/> sent to the applicant and to the International Bureau a total of sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).			
4. This report contains indications relating to the following items: <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> Box No. I Basis of the opinion <input type="checkbox"/> Box No. II Priority <input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application </div>			
Date of submission of the demand 22.04.2005		Date of completion of this report 22.11.2005	
Name and mailing address of the international preliminary examining authority: <div style="display: flex; align-items: center;"> <div> European Patent Office - Gitschiner Str. 103 D-10958 Berlin Tel. +49 30 25901 - 0 Fax: +49 30 25901 - 840 </div> </div>		Authorized Officer Abraham, V Telephone No. +49 30 25901-	



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/010928

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-27 as originally filed

Claims, Numbers

1-71 as originally filed

Drawings, Sheets

1/14-14/14 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
- ☐ the entire international application,
 - ☒ claims Nos. 1-38
- because:
- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
 - ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 51,71 are so unclear that no meaningful opinion could be formed (*specify*):
see separate sheet
 - ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
 - ☒ no international search report has been established for the said claims Nos. 1-38
 - ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
 - the written form ☐ has not been furnished
 - ☐ does not comply with the standard
 - the computer readable form ☐ has not been furnished
 - ☐ does not comply with the standard
 - ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.
 - ☐ See separate sheet for further details

**INTERNATIONAL PRELIMINARY REPORT
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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	45-48,52-70
	No: Claims	39-44,49-51,71
Inventive step (IS)	Yes: Claims	52-70
	No: Claims	45-48
Industrial applicability (IA)	Yes: Claims	39-71
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/EP2004/010928

Reference is made to the following documents:

- D1: US-A-5 693 082 (GRUNDY DAVID ALAN ET AL) 2 December 1997 (1997-12-02)
- D2: US-A-5 800 494 (CAMPBELL THOMAS H ET AL) 1 September 1998 (1998-09-01)
- D3: US-A-5 810 803 (MOSS JON F ET AL) 22 September 1998 (1998-09-22)
- D4: WO 00/49957 A (MICROSULIS PLC ; NIGEL CRONIN (GB)) 31 August 2000 (2000-08-31)
- D5: US-A-6 026 331 (SMITH SUZANNE ET AL) 15 February 2000 (2000-02-15)
- D6: US 2003/187369 A1 (LEWIS STEPHEN B ET AL) 2 October 2003 (2003-10-02)

III

1. Claims 51 and 71 are entirely unclear contrary to the requirements of Article 6 PCT and Rule 6.2(a) PCT since they refer to the specification and drawings. No opinion can be established for those claims.

V

1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 39 is not new in the sense of Article 33(2) PCT.

The document D1 discloses (the references in parentheses applying to this document):

An applicator (figure 7) comprising:

- an elongate member (figure 7) including an emitter (56), the emitter includes a radiation emitting portion made of dielectric material and having an axis of elongation (figure 7, column 9, lines 16-34);
- an elongate conductor (53);
- the radiation emitting portion being shaped and dimensioned so as to emit said radiation at a predetermined intensity in a field of limited dimensions adjacent thereto, whereby occlusion of the tissue of a hollow anatomical with said field is effectively accomplished (the applicator according to D1 can be introduced into a blood vessel, column 4, line 20; the system works in the same

frequency and power range as the claimed system, therefore the radiation emitting portion of D1 also falls under the definition of the last paragraph of claim 1).

- 1.1 The subject-matter of claim 39 also lacks novelty over documents D2-D4 for similar reasons as indicated above (see D2: figures 3-6; D3: figure 2a; D4: figures 2-5).
2. Dependent claims 40-50 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty or inventive step (Article 33(2) and (3) PCT). The additional features of the dependent claims are either known from the prior art documents D1-D6 or are obvious design measures and would be readily incorporated by one skilled in the art according to circumstances and in view of their known technical effect.
3. The system as defined in claim 52 appears to meet the requirements of the PCT. None of the available prior art microwave systems comprise the additional features of that claim.
4. Claims 53-70 are dependent on claim 52 and therefore also meet the requirements of the PCT. In this context claims 61-70 have been understood as claims defining a system according to claim 60 further limiting the sensor included in that system.
5. The independent claims are not drafted in the two part form in accordance with Rule 6.3(b) PCT, with those features known in combination from the prior art being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in a characterising part (Rule 6.3(b)(ii) PCT).
6. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).